

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number  
WO 2005/022575 A1

(51) International Patent Classification<sup>7</sup>: H01H 59/00, 57/00 (74) Agent: DAVIES, Philip; QinetiQ Ltd, IP Formalities, Cody Technology Park, A4 Building, Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).

(21) International Application Number: PCT/GB2004/003711

(22) International Filing Date: 27 August 2004 (27.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0320405.4 30 August 2003 (30.08.2003) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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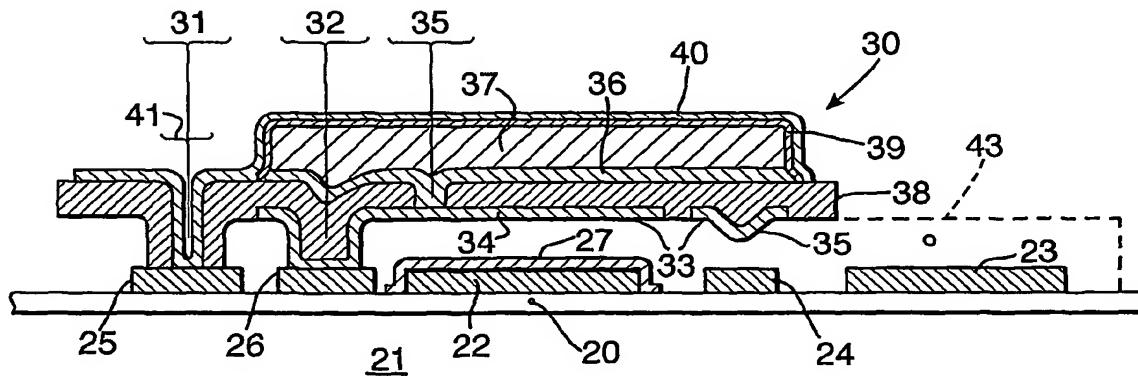
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MICRO ELECTROMECHANICAL SYSTEM SWITCH.



(57) Abstract: A micro electromechanical system (MEMS) switch includes a fixed contact (24) and a moveable contact (35) on an armature (30). The switch has electrodes (22, 34) associated with both the fixed and moveable contacts for providing an electrostatic switch operation and piezoelectric material with associated electrodes (36, 40) for bending the armature upon application of an electric voltage and providing an initial piezoelectric switch operation followed by electrostatic switching and clamping. The armature is of curved shape which is bent away from the fixed contact when in a switch open condition with zero applied voltage. This gives a large, e.g. 3pm, switch gap in an OFF state which is reduced by piezoelectric operation suitable for electrostatic switch closing. A curved condition is provided by varying strain across the armature thickness, and is produced during manufacture of the switch.

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